LED Origin/Destination Mapping Project:
Details and Logistics

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Background

As the Secretary of Labor has pointed out, "America's workplaces and employment landscape are changing rapidly as global competition and technological innovation continue to unleash powerful forces that are restructuring industries, transforming jobs, and redefining paths to employment. This economic dynamism has profound implications for workforce development policy and strategy including our systems for collecting, analyzing, and communicating workforce information. There is universal agreement that a 21st century workforce information system must grow in scope and sophistication if it is to satisfy a more demanding audience of information consumers." *(Emily Stover DeRocco, Training And Employment Guidance Letter No. 1-04, July 2, 2004)*

The Local Employment Dynamics (LED) program at the Census Bureau is focused on providing workforce investment programs with more current and local information about their labor markets, together with the high growth and high demand industries. In particular, the LED program wants to work with Labor Market Information (LMI) agencies and Workforce Investment Boards (WIB) to develop mapping applications that can be directly used throughout the One-Stop system that answers such questions as:

1. Where are the employers in particular industries located?
2. Where are the high wage employment areas?
    a. What industries are located in the high wage employment areas?
    b. Where do the workers who work in high wage areas live?
3. Where are the high growth employment areas?
    a. What industries are located in the high growth employment areas?
    b. Where do workers who work in high growth areas live?
4. Where do workers live?
    a. What are their characteristics?

Details

In working with the Employment and Training Administration (ETA) to achieve this goal, the LED program will identify 10 state partners that have already shipped data to LED to produce such a mapping application. This application should permit technical and non-technical staff in LMI and local WIB offices to produce local market area maps and tabular reports showing current employer and worker interdependencies and needs. Minnesota data will be used in the development of an application template. Once consensus is reached on a product, LED staff will create the core datasets for each of the 10 states.

The project will provide block-to-block origin-destination flows for two years: 2002 and 2003. It will also develop the following workplace and residence characteristics by detailed geographic unit – either the block group or tract – upon consultation with LMI agencies and WIBs, and subject to the approval of the Census Bureau's Disclosure Review Board.

Characteristics of the Workplace Area

1. Industries represented (at the 2-digit NAICS code level)
2. Proportion (or number) of workers by earnings range
3. Proportion (or number) of workers by age range
4. Measures of high demand and high growth such as
    a. Job gain and loss
    b. Hires and Separations
    c. Earnings of Hires, and
    d. Earnings of Separations
5. Number of establishments

Characteristics of the Place of Residence Area

1. Industries for which residents work (at the 2-digit NAICS code level)
2. Proportion (or number) of workers by earnings ranges
3. Proportion (or number) of workers by age ranges

Logistics

LED and ETA will work with state LMI offices and local WIBs to determine data needs, technical access and security requirements, as well as local training and support needs.

LMI offices and their WIB customers will receive the following:

1. Online access to a jointly developed mapping system with functionality that is detailed below
2. An Origin-Destination matrix at the block level for their state
3. Workplace and place of residence characteristics at either the block group or tract level for their state

Each LMI Office is asked to do the following:

1. Work with state and local WIBs to evaluate the usability of the application for decision-making and provide frequent written and verbal feedback on ways to improve the product.
2. Work with transportation planners to provide input that improves the quality of the input ES202 (QCEW) data file – particularly to
    a. Improve the physical addresses of establishments
    b. Provide breakouts of multi-unit businesses that file as single units
3. Develop an implementation, marketing and dissemination plan so that the final product is made available to as many users as possible.

4. Leverage interest in the product with as many state agencies as possible – particularly economic development agencies, chambers of commerce, employer groups, and educational institutions such as community colleges.

Timeline

1. LED and ETA will work together to select 10 states by August 15.
2. LED will establish listserv and schedule for conference calls to provide input on the development of the mapping application.
3. Excensus LLC, the application developer for this project, will provide regular updates as development proceeds in the Minnesota test area (see below).
4. LED and ETA will host a meeting of partner states and WIBs in November as a working group to provide onsite input.
5. Test versions of the application will be implemented in One Stop locations or another state agency in Minnesota beginning in December.
6. December 30 – Origin-Destination matrices for 10 states produced.
7. December 30 – workplace and residence characteristics produced for MN.
8. January LED state workshop presentations.
9. March 2-3 National Association of Workforce Boards presentation.
10. March, 2005 through September, 2005 – Final edits and application rollout and training to state participants.

Description of the Mapping Application

This is an internet application that uses a standard internet browser. Concept testing was completed earlier this year by Excensus and a prototype version of the application can be viewed at http://lehd.excensusonline.com. The next version will feature detailed, online maps that permit users to zoom in for small area viewing (neighborhoods or small towns) or zoom out to view metropolitan area or regional labor market patterns. Working with these maps, users can define home and work locations based on standard area boundaries (cities. counties, WIB areas) or user-defined areas identified using simple drawing tools. In addition, based on the areas selected, the application will produce labor market profile maps and reports pertaining to the selected home or workplace areas.

A unique feature of the application will be the capability to produce travel shed maps and reports showing commute patterns and community/employment area interdependencies. Functionality will be added that permits the mapping and reporting of historical trends data. LMI and WIB users will be able to be export application data tables and maps and then incorporate this information into their own reports and documents. All of the workforce data, as identified above, will be incorporated into the mapping and profiling application.